

FEDERAL UTILITY PARTNERSHIP WORKING GROUP SEMINAR

November 15-16, 2017
Ontario, California

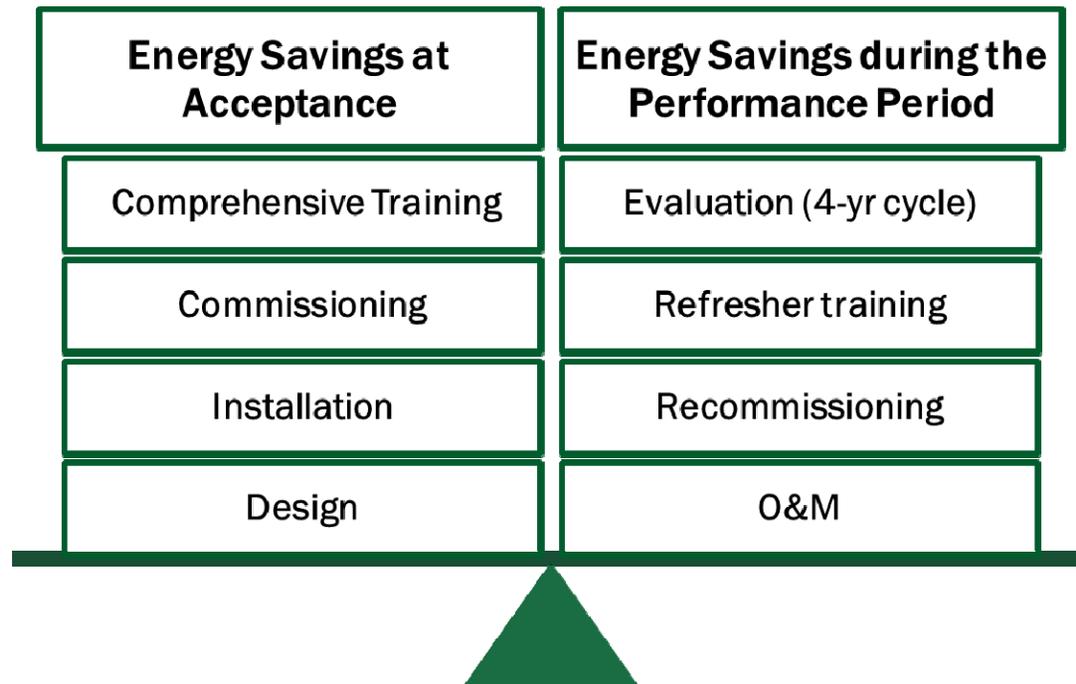
Performance Assurance for UESC, A New Chapter

Hosted by:



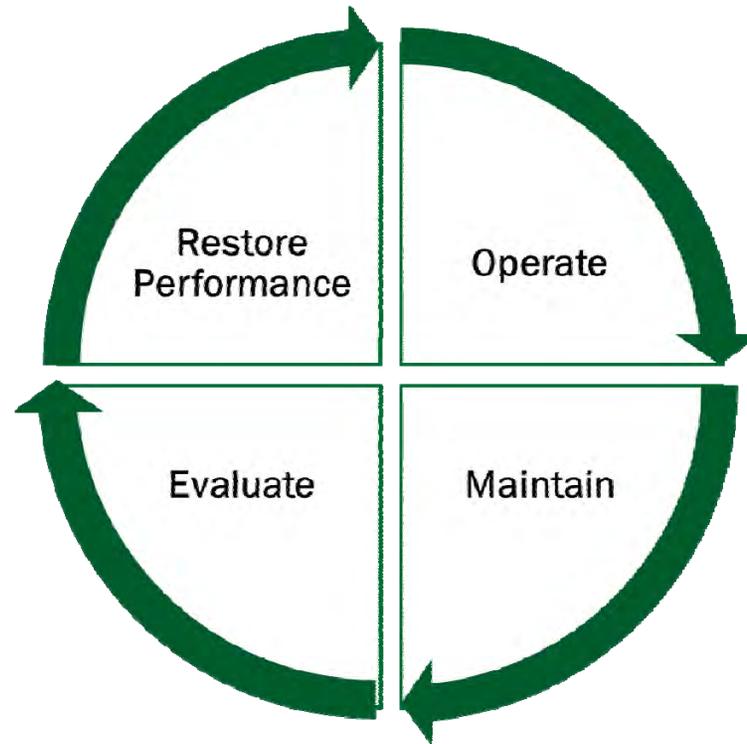
Vision

Long-term success of UESC projects through sustained performance of energy conservation measures (ECMs)



Purpose

Continuous design-level performance of each measure in an awarded project is fundamental to achieving projected savings



Objectives

- 1. Performance assurance plan and task order language will be aligned with legislation and Federal requirements.**
- 2. ECM designs will clearly describe energy and water savings, include key performance indicators (kpi), specific Cx protocol, and performance evaluation templates.**
- 3. Comprehensive training will prepare Agency staff to operate, maintain, evaluate and document performance of each ECM on schedule and with technical proficiency.**
- 4. Performance period Utility engagement will be cost effective, include rCx refresher training, and assist performance evaluation and rCx**

Introducing: UESC Guide Chapter

Performance Assurance Planning

1. Augment section content
 - a) Objectives and strategies
 - b) Requirements and guidance
 - c) Task Order language
 - d) Training on Cx and O&M
 - e) Updated templates and samples

2. Provide training
 - a) New slide module in training
 - b) Webinar
 - c) Energy exchange



Align with Federal Requirements

ECM performance and evaluation requirements

- 1. OMB M-12-21, II Conditions for Annual Scoring of UESCs**
 - a) “Energy Savings Performance Assurances”
 - b) “Measurement and verification of savings through commissioning (Cx) and retrocommissioning (rtCx)”
 - c) “Competition or alternatives analysis”

- 2. 42 USC 8253**
 - a) Include Cx in facility evaluations
 - b) Verify performance of implemented ECMs
 - c) Complete facility evaluations on a 4-year cycle

Task Order Requirements for Sustained Performance

1. Design to clearly define and demonstrate

- a) Technical and economic viability
- b) Substantiated energy savings and specific key performance indicators (kpi)
- c) Performance-based operational narrative e.g. sequence of operations

2. Require a Performance Assurance Plan to address

- a) Cx and rCx protocol, schedule, and responsibilities
- b) Manufacturers' and design-performance operations and maintenance O&M requirements and schedule
- c) Comprehensive Training (separate slide)

Task Order Requirements for Sustained Performance

3. Require a dedicated lead e.g. commissioning provider (CxP)

a) Responsible for developing the Plan

- i. Establish design performance for each ECM
- ii. Develop Cx and rCx protocol, schedules, and templates
- iii. Establish O&M requirements
- iv. Training content and materials

b) Responsible for leading Plan implementation

- i. Design – document and sign-off on energy savings, kpi, and performance aspects of ECM
- ii. Construction – document and sign-off on equipment selection, installation, and functional testing
- iii. Training – provide materials and instruction
- iv. Commissioning – implement and document ECM commissioning and write Cx Report
- v. Implement and document Utility aspects of performance period

Comprehensive Training

Inclusive of all ECMs; major equipment and systems

- 1. Overview of the project including priorities and objectives**
- 2. Review design intent with emphasis on key performance indicators and interplay between ECMs and existing systems**
- 3. Functional testing and commissioning, review the protocol and walk through the actual activities**
- 4. Review the operations and maintenance (O&M) requirements, schedules, and performance actions**
- 5. Review the recommissioning (rCx) protocol, evaluate and compare performance to design; document**
- 6. Review post-acceptance services as negotiated in the contract**
- 7. Training materials**

Customize Deliverables

During the performance period the utility's engagement will be as specified in the contract. For Example,

- 1. Agency performs rCx to evaluate and verify performance**
- 2. Utility performs post-acceptance Plan activities**
 - a) In performance years 1, 4, 8, and 12 the utility (through CxP) will
 - b) Provide rCx refresher training
 - c) Assist Agency rCx
 - d) Provide evaluation of the facility to identify new measures; (meets Agency training and facility evaluation requirements)
- 3. Agency acts on identified performance issues to return ECM to design performance as needed**

Forthcoming Resources and Training

Performance Assurance Chapter

- We welcome your input
 - Comment period is November 16 – December 7, 2017
 - Please request copy and send comments to deb.Vasquez@nrel.gov

Performance Assurance Training

- Webinar
- Energy Exchange
- UESC Training Module

Thank You

Deb Vasquez

National Renewable Energy Laboratory

deb.vasquez@nrel.gov

(303) 384-7548